

# Epi Notes



North Carolina Department of Health and Human Services ♦ Division of Public Health

Volume 2002-1

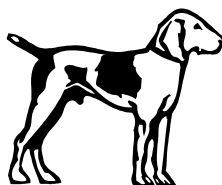
March 2002 - May 2002

## In This Issue:

Blastomycosis .....	1
PSST RIOT Targets Syphilis in Guilford County .....	2
The North Carolina Public Health and Environmental Health Response To Bioterrorism .....	3
Health Providers Get "Syphilis Alert" .....	3
N.C. Tuberculosis Control Updates .....	4
North Carolina TB Statistics, 2001 ..	5
Minimizing Risks from CCA-Treated Wood .....	6
Advice on Eating Fish .....	7
Eastern North Carolina Pediatric HIV Case Management Services and Social Work Program. ....	8
Reported Communicable Diseases, North Carolina January-March 2002 .....	10
Employee Recognition: Beverly Cooper Employee of the Quarter .....	11

## Blastomycosis

*Prepared by J. Newton MacCormack, MD, MPH; Acting Head,  
General Communicable Disease Control Branch  
Pia MacDonald, PhD; EIS Officer*



Blastomycosis is a fungal disease affecting humans and certain animals, particularly dogs. Spores of *Blastomyces dermatitidis*, the causative organism, are transmitted via the respiratory route from evanescent environmental sources, usually moist soil

enriched with decaying organic matter. The distribution of cases is usually sporadic within fairly well-defined endemic and hyperendemic areas of North America; parts of eastern North Carolina are defined as hyperendemic. The reported incidence is usually about 1-2 cases per 100,000 population per year in endemic areas. Occasionally, clusters of blastomycosis cases occur, and a recent cluster in Duplin County illustrates some of the frustrating aspects of dealing with this infection.

Between late November 2001 and early February 2002, eight residents of the Warsaw community in Duplin County had onsets of illnesses that were diagnosed as pulmonary blastomycosis. Because four of the earliest case patients to be diagnosed were students at the local high school, attention was initially focused on the school campus as the likely source of infection. However, the results of investigation of these cases and the four cases in adults that subsequently came to light make the campus an unlikely source. Some of the non-student case patients never or rarely visited the high school, and they lived and/or worked some distance away.

An epidemiologic investigation was conducted by Duplin County Health Department staff, assisted by local school staff and the General Communicable Disease Control Branch. This included intensification of case finding, interviews with case patients and their families, review of school attendance records for absence patterns consistent with blastomycosis, investigation of construction events in the area, and analysis of weather patterns during the suspected active period for *B. dermatitidis* dissemination (based on the known incubation period of three

*(continued on page 2)*

(continued from page 1)

weeks to three months). Included in this epidemiologic investigation was study of four local canine blastomycosis cases with onsets in January 2002. Taken together, there was nothing in the results of all these studies to suggest a definable common source for these human and canine infections.

Without a clear indication of the source of infection in this cluster, there was no point in attempting environmental cultures to search for the source. In the majority of other cluster investigations, even where there has been clear epidemiologic implication of a common source for multiple cases of blastomycosis, environmental cultures have been negative for *B. dermatitidis*. Given the rather protracted blastomycosis incubation period, this may have been because investigators attempted their cultures after conditions conducive to growth of the organism had changed to unfavorable. In no case, however, has there been cultural confirmation of an environmental source in the absence of good epidemiologic evidence for such a source; this includes investigations of two other North Carolina clusters.<sup>1-3</sup>

Another frustrating aspect of blastomycosis is the difficulty in accurately making a diagnosis of the disease. Because of its lack of sensitivity and specificity, the skin test antigen, blastomycin, which was once in use is no longer available. Serologic testing for this infection also suffers from this deficiency. The diagnostic gold standard is visualization of the yeast form of *B. dermatitidis* in a clinical specimen; culture is ideal, but may require a month or more for the organism to grow. Obtaining a specimen that will yield a positive result can be difficult to achieve without invasive techniques in some cases.

First, however, one has to suspect the diagnosis. Because the disease usually presents in a form that mimics other more common disorders, it is often initially misdiagnosed. Fortunately, many patients with the acute form of pulmonary blastomycosis recover on their own without antifungal therapy. Morbidity can be prolonged and severe in cases of chronic infection when appropriate treatment is delayed. ❖

1. Smith JG, Harris JS, Conant NF, et al. An epidemic of North American blastomycosis. *JAMA* 1955;158:641-6.
2. Harris JS, Smith JG, Humbert WC, et al. North American blastomycosis in an epidemic area. *Pub. Health Rep.* 1957;72:95-100.
3. CDC. Blastomycosis — North Carolina. *MMWR* 1976;25:205-6.

## PSST RIOT Targets Syphilis in Guilford County

*Prepared by Rhonda Ashby and Jan Scott  
HIV/STD Prevention and Care Branch*

In an effort to eliminate syphilis in High Point, Guilford County hosted a PSST RIOT (“People Stopping Syphilis Today” Rapid Intervention Outreach Team) on the weekend of May 17-18.

Twelve teams of community partners from across North Carolina conducted this intense effort throughout the High Point community. The PSST RIOT teams were composed of individuals from local community-based organizations (CBOs), Sickle Cell Disease Association of the Piedmont (SCDAP), the Nia Community Action Center, Rocky Mount OIC (Opportunities Industrialization Center), the Guilford County Health Department (GCHD), the North Carolina Syphilis Elimination Project (NCSEP), and the HIV/STD Prevention and Care Branch’s Field Service and Community Planning units.

### Background

Guilford County (pop. 423,005) has been experiencing an increase in syphilis since 1999, when the county’s syphilis rate was 13.5 cases per 100,000 persons, compared to the state’s rate of 6.1 per 100,000. By the year 2001, the county’s infectious syphilis rate had increased to 16.3 cases per 100,000, while North Carolina’s overall syphilis rate dropped to 5.5 per 100,000. As a result, the HIV/STD Prevention and Care Field Services Unit and the N.C. Syphilis Elimination Project (NCSEP) have been working closely with the Guilford County Health Department (GCHD) and community members to decrease syphilis.

### Weekend Outreach

An intensive weekend of home visits and health education was planned—the PSST RIOT. On May 16, Todd Vanhoy, the state’s Field Service Unit Manager, and Caroline Moseley, Guilford County Syphilis Elimination Coordinator (and designee for the county health director, Dr. Harold Gabel), Nia and SCDAP representatives held a press conference to announce the upcoming RIOT and inform the community that PSST teams would go door-to-door offering free testing, counseling and education. Community awareness efforts also included articles in local newspapers, public service announcements with local TV and radio stations, and bus ads. Flyers were

## **The North Carolina Public Health and Environmental Health Response To Bioterrorism**

*Prepared by William Service, MSPH, Industrial Hygiene Consultant, Occupational and Environmental Epidemiology Branch*

Bioterrorism (BT) is an attack that causes or threatens to cause illness or disease in a human population. More specifically, bioterrorism is likely to be an act of environmental contamination of food, water, air or objects. Because population-based prevention, detection and control of disease is the essence of Public Health, the Public Health community—particularly its environmental health agencies and programs—has a critical role to play in preparation for and response to acts of bioterrorism.

The N.C. Division of Public Health is in the final stages of developing, and the early stages of implementing, a BT preparedness and response program. The current focus is on placement of regional BT teams in the New Hanover, Pitt, Cumberland, Durham, Guilford, Mecklenburg, and Buncombe county health departments. Each team will serve between 6 and 26 surrounding counties and will be staffed by a physician/epidemiologist, an infectious disease investigator, an industrial hygienist, and an administrative assistant. A similarly staffed state team will be led by a physician BT coordinator. The industrial hygienists (IH) on the regional and the state teams will provide the environmental health component of the public health response.

The core epidemiologic functions of the BT teams will include rapid detection of disease outbreak (primarily through enhanced surveillance and training); disease outbreak investigation; and epidemic control. The IH/environmental health role will involve characterizing exposure status and identifying environmental controls to minimize human exposure and risk.

Experience from the anthrax attacks last fall highlighted the need for environmental services and guidance for a number of issues, such as identification of environmental and exposure sampling methods; guidance and oversight for environmental contamination assessment; and recommendations for exposure control such as personal protective equipment (respirators, protective clothing) and work practices (mail handling and equipment maintenance). Local and state team IHs will also spend a

considerable amount of time training groups such as Hazardous Materials Response teams (who are much more comfortable with chemical agents than with biological agents); law enforcement officials; and environmental health staff at local health departments. Additional tasks for the IHs will include risk communication; vulnerability assessment and reduction (such as with public water supply systems and food processors and handlers); and integration of the regional BT program effort into local emergency operations plans.

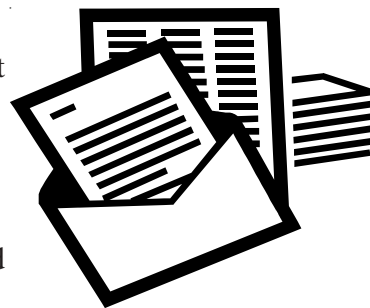
The BT effort in North Carolina will focus considerable new resources on rapid detection and characterization of disease and illness (including exposure assessment), and implementation of effective control measures (including environmental controls) to minimize morbidity and mortality. Because these efforts are fundamental to public health and environmental health, the opportunity exists to enhance not just BT preparedness, but the state's public health and environmental health capacity and infrastructure as a whole.



## **Health Providers Get "Syphilis Alert"**

*Prepared by Jan Scott, N.C. Syphilis Elimination Coordinator  
HIV/STD Prevention and Care Branch*

The North Carolina Syphilis Elimination Project mailed a "Syphilis Alert" in May to more than 16,000 medical doctors throughout the state. Citing North Carolina's continued disproportionate share of infectious syphilis cases compared to the rest of the United States and recent increases in syphilis in four N.C. counties, the letter provides guidelines for screening, treatment and reporting.



Not only is it important to prevent new cases of syphilis because of the dangers of that disease, reducing the incidence of syphilis has been found to also reduce the rate of HIV infection. The averted HIV cases due to syphilis elimination activities in 2000, for example, resulted in an estimated \$5 million in cost savings for that year.

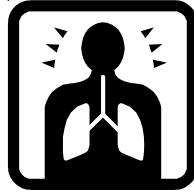
*(continued on page 11)*

## N.C. Tuberculosis Control Updates

*Prepared by Elizabeth Zeringue, TB Nurse and  
Carol Dukes Hamilton, M.D., N.C. TB Medical Director,  
General Communicable Disease Control Branch*

### The Role of the Medical Advisory Committee

The Medical Advisory Committee (MAC) is a dedicated group of physicians, specializing in infectious diseases or pulmonology, who have an interest in and support the mission of public health. The group meets quarterly in Raleigh with the TB Control staff to discuss changes in TB treatment, evaluate CDC recommendations, and provide expert opinion and guidance regarding policy development and implementation.



The group's current chairperson is Dr. Chris Ohl, who is on faculty at Bowman Gray School of Medicine and is an infectious disease specialist practicing at N. C. Baptist Hospital. Other members include Dr. Ward Robinson of University of North Carolina and Moses Cone Hospital; Amina Ahmed, pediatric infectious disease specialist at Carolinas Medical Center; Richard Frothingham, infectious disease specialist at Duke University Medical Center and Durham Veterans' Hospital; Paul Cook, East Carolina University and Pitt County Health Department TB medical consultant; David Weber, UNC/N.C. Memorial Hospital; William "Bill" Hunt, TB medical consultant at Craven County Health Department; and Dr. William "Bill" Tally, formerly TB medical consultant for the N.C. TB Control Program.

Most recently the committee has been assisting the N.C. TB Control Program in formulating protocols to be used in conjunction with our participation in several exciting research study opportunities. The committee recommended adoption of changes in the treatment of TB disease in persons with HIV/AIDS, following an urgent memo from CDC which reported a larger-than-expected number of Rifampin-resistant relapses in clinical trials. Additionally, the committee's advice has been instrumental in the development of policy guidelines for Tuberculin Skin Testing of refugees entering North Carolina. Committee members continue to work with the TB Control staff to incorporate changes in treatment guidelines for both latent TB and active TB disease to ensure compliance with national practice standards, and

they support and advocate N.C. TB Control's policy of directly observed therapy (DOT) as the standard of care in North Carolina.

Occasionally, these physicians are called upon to act as local experts, providing guidance to community physicians on subjects such as drug resistance or intolerance, alternative therapies, and drug dosing in the setting of renal failure. They also play a significant role in the ongoing education of medical students, residents and house staff in their own institutions.

Our next challenge will be the long-anticipated recommendations for changes in the treatment guidelines for TB disease, due out of CDC in the late summer. We in TB Control feel fortunate to have such dedicated and knowledgeable physicians available to advise the program on these and other developments.

### TB Morbidity: 2001

Last year was a record-breaking year for the N.C. TB Control program. Three hundred ninety-eight cases of TB were reported for 2001, the *fewest* number of cases of TB ever in North Carolina. We attribute a significant portion of the decrease to the consistent use of directly observed therapy (DOT) and improved contact investigation and surveillance by local health department staff. Central to this improvement has been case management and oversight, as well as critical TB-management training provided to the local health department staff by the TB Control nurse consultants.

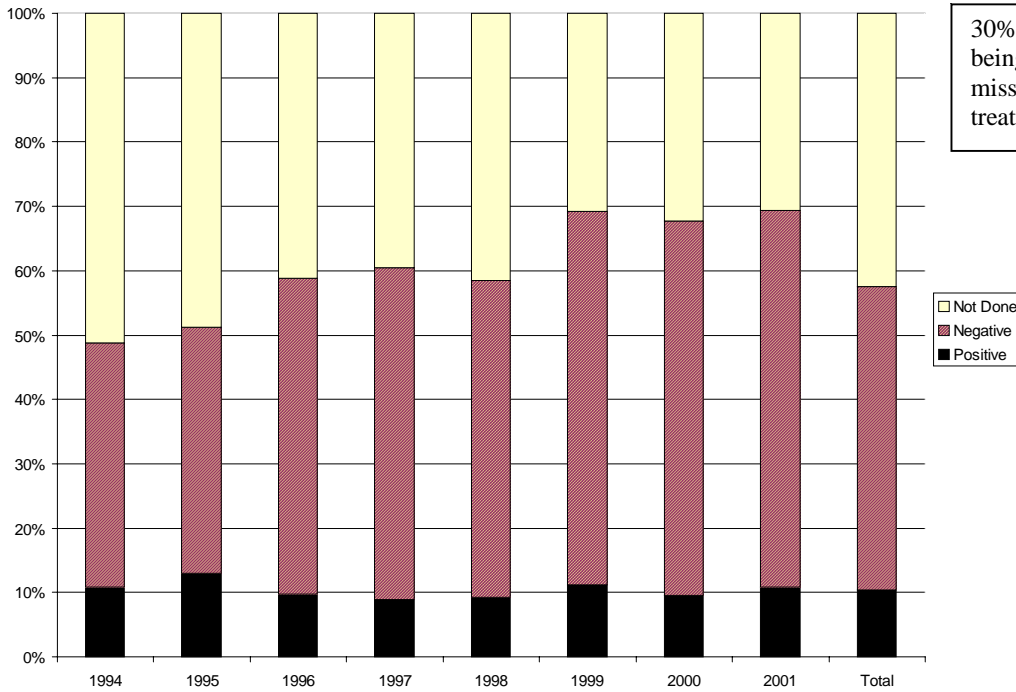
The breakdown of TB in North Carolina remains consistent, with 75 percent of cases being pulmonary. The primary extrapulmonary disease sites are lymphatic (34%) and pleural (24%). The case trend by age has continued to decline across all age groups. While the number of cases in blacks continues to outnumber cases in whites, there has been a 41 percent decrease in the number of cases in black Americans since 1994. Case trends in persons who are foreign-born continue to be flat; however, the foreign-born population accounts for an increasing percentage in the overall number of cases reported to us.

While the total number of TB cases in many of our counties has declined, a small number of counties continue to report the majority of cases. Eight counties account for 193 (48%) of the total cases reported: Wake 41;



# NORTH CAROLINA TB STATISTICS, 2001

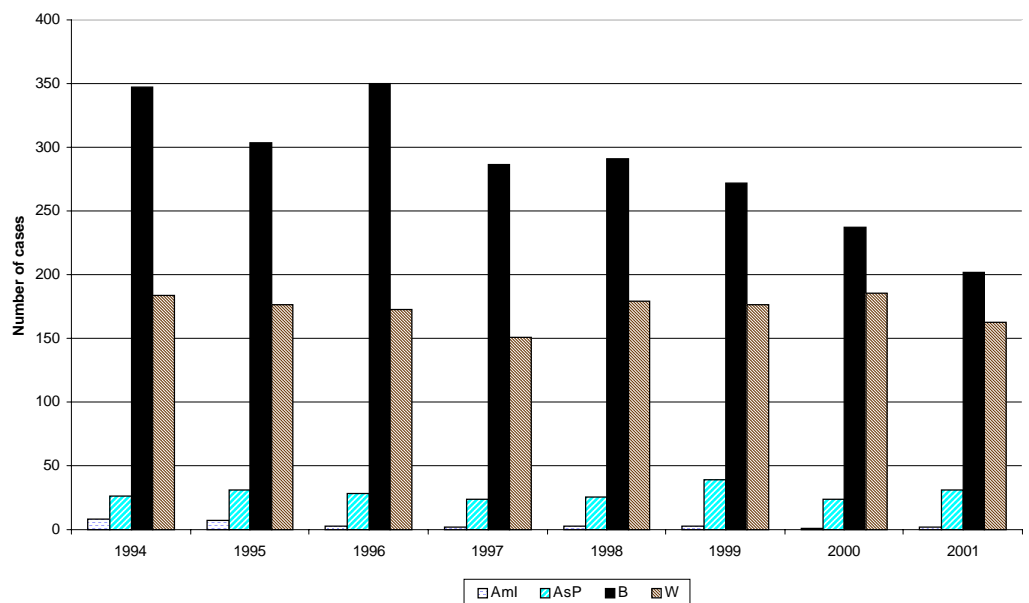
## HIV Testing Status, TB Cases



30% of people with TB are still not being tested for HIV. This may be a missed life-saving opportunity to begin treatment of their HIV/AIDS.

TB cases in the state's black population continue to outnumber those among whites, but have decreased by 41.7% since 1994 compared to a decrease of 11.4% among whites.

## TB Cases by Race, North Carolina



## Minimizing Risks from CCA-Treated Wood

*Prepared by Luanne Williams, Pharm. D., Toxicologist,  
Occupational and Environmental Epidemiology Branch*

While residential uses of pressure-treated wood containing a pesticide known as CCA (chromated copper arsenate) are soon to be phased out, existing structures and supplies of the wood still pose a health risk, especially to children.

CCA has been used in lumber for years to prevent destruction from rot and insects. However, the arsenic in CCA is a known human carcinogen, and health experts recommend that people avoid exposure to arsenic. Consequently, the Environmental Protection Agency (EPA) announced in February 2002 that as of December 31, 2003, CCA can no longer be used to treat wood intended for use in decks, picnic tables, landscaping timbers, gazebos, residential fencing, patios, walkways, boardwalks, and play-structures. (See [www.epa.gov/pesticides/citizens/1file.htm](http://www.epa.gov/pesticides/citizens/1file.htm).)

While new uses of the wood will be limited, existing structures may still expose children and others to CCA. As treated wood weathers, arsenic can leach from the wood, leaving residues on the wood's surface and in nearby soil. Young children who play on decks or playscapes made from CCA-treated wood can get arsenic on their hands and may then ingest arsenic residues if they eat, drink or place their hands into their mouths.

Because of the associated cancer risks, the public should avoid wood treated with arsenic when building structures like playgrounds, decks, or picnic tables. Homeowners who are planning to add a deck or playground should be on the lookout for arsenic-free alternatives such as cedar, redwood, plastics, metal, and composite materials. In addition, simple precautions can reduce the health risks posed by wood structures that are already in place.

Rather than removing existing playground equipment or decks built with CCA-treated wood, the N.C. Division of Public Health provides the following guidelines for protecting children, pets and others from possible arsenic exposure:

- Seal existing treated-wood structures every 1-2 years with a weather-resistant coating such as an oil-based, semi-transparent stain. Penetrating sealants form a barrier on the wood surface that can significantly reduce the amount of arsenic released from the wood while also protecting and preserving the wood. (See [www.caes.state.ct.us/PlantScienceDay/1999PSD/arsenic99.htm](http://www.caes.state.ct.us/PlantScienceDay/1999PSD/arsenic99.htm)).

- Keep children and pets away from under-deck areas, where arsenic may have leached.
- Make sure children wash their hands thoroughly after playing on wood structures, especially before eating or drinking.
- Since the soil under previously unsealed wood play structures may contain arsenic, use a buffer such as natural (untreated) wood chips or sand under the structures.
- Do not use mulch or wood chips made from CCA-treated wood.
- Food should not come into direct contact with any treated wood. Cover tables with tablecloths.
- Treated wood should not be used where it may come into direct or indirect contact with drinking water.
- Do not sand CCA-treated structures or power-wash by highly abrasive means.
- Do not use CCA-treated wood to build picnic tables, garden beds or compost bins, and do not grow edible plants near CCA-treated decks.
- Do not burn CCA-treated wood, as toxic chemicals may be released in the smoke and become concentrated in the ashes.
- Cut CCA-treated wood outdoors and wear a dust mask, goggles and gloves. Clean up all sawdust, scraps and other construction debris and dispose of in the trash.
- After working with CCA-treated wood, wash exposed skin, especially hands, with soap and water before eating, drinking or using tobacco products. Wash work clothes separately from other household clothing before wearing them again.
- Homeowners who are planning to add or repair a deck, playground or other outdoor structure should look for arsenic-free alternatives such as redwood, cedar, arsenic-free treated wood, plastics, composite materials or metal.



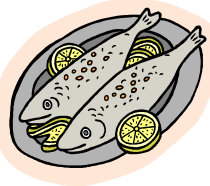
For more information, see the N.C. Division of Public Health's arsenic webpage at [www.epi.state.nc.us/epi/oii/cca.html](http://www.epi.state.nc.us/epi/oii/cca.html) or the EPA's CCA website at [www.epa.gov/pesticides/citizens/1file.htm](http://www.epa.gov/pesticides/citizens/1file.htm). For specific questions, call the Occupational and Environmental Epidemiology Branch at (919) 733-3410 or Dr. Luanne Williams at (919) 715-6429.



## Advice on Eating Fish

*Prepared by Luanne K. Williams, Pharm.D., Toxicologist,  
Occupational and Environmental Epidemiology Branch*

### Benefits and Risks of Eating Fish



Fish is a good source of high-quality protein, essential fatty acids, and minerals such as iron and zinc. The developing retina and nervous system of an unborn child may benefit from maternal consumption of fish during

pregnancy. Consumption as little as one to two meals per week of fish has also been associated with a lowered risk of coronary heart disease. However, consumption of some kinds of fish should be avoided due to high levels of mercury in the meat of the fish. An environmental pollutant, mercury (in the form of methylmercury) can accumulate to harmful concentrations in certain fish, posing a health risk to vulnerable populations such as developing fetuses and young children.

The developing human nervous system is particularly sensitive to mercury. Several studies have reported increasing effects on the developing nervous system of an unborn baby with increasing maternal mercury exposure from routine maternal consumption of fish and whale meat. Neurological processes in the areas of language, attention and memory were most affected. Those deficits appeared to subsequently affect the way the children thought, learned and problem-solved.

Studies conducted among fish-eating populations in New Zealand and the Faroe Islands have shown the developing fetus to be at least three times more sensitive to food-borne mercury than adults. In addition, neurological effects such as ataxia and paresthesia were reported in adults after they ate grain contaminated with very high concentrations of mercury.

### Fish Tissue Sampling Led to State Advice

State and national fish tissue monitoring data have revealed high mercury concentrations in predatory ocean fish and in certain North Carolina freshwater fish. The high-mercury ocean fish are shark, swordfish, king mackerel and tilefish. The high-mercury freshwater fish are blackfish (bowfin), jack fish (chain pickerel) and largemouth bass caught in the eastern half of the state.

If a pregnant woman consumes 16 to 32 ounces (two to four 8-ounce meals) a week of high-mercury fish, her child may have about a 5 percent higher risk of adverse effects on cognitive and academic performances resulting from the in-utero exposure. Because of the risks to unborn babies

and young children whose nervous systems are still developing, the State is recommending that women of childbearing age and children avoid eating fish that are high in mercury. However, because of the benefits of eating fish, the State is also encouraging women of childbearing age and children to eat other fish that are low in mercury. This advice is consistent with the national advisories issued in January 2001 by the U.S. Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA). North Carolina is also providing advice for other adults on eating fish (see guidelines below).

## N.C. Division of Public Health's Advice on Eating Fish

### Women of Childbearing Age (15-44 years), Pregnant Women and Breastfeeding Women, and Children under 15 Years of Age:

- Do not eat shark, swordfish, tilefish or king mackerel; or bowfin (blackfish), chain pickerel (jack fish) or largemouth bass caught in North Carolina waters south and east of Interstate 85. These fish are often high in mercury.
- Eat up to two meals per week of other fish.

### Other Women, Men, and Children 15 Yrs. and Older

- Eat no more than one meal per week of shark, swordfish, tilefish or king mackerel; or bowfin (blackfish), chain pickerel (jack fish) or largemouth bass caught in North Carolina waters south and east of Interstate 85. These fish are often high in mercury.
- Eat up to four meals per week of other fish.

*Note: A "meal" is 6 ounces of cooked fish for adults and for children 15 years and older, and 2 ounces of cooked fish for younger children.*

### Fish that are Low in Mercury

The following ocean fish are low in mercury and are good additions to a healthy, balanced diet: cod, whitefish, pollock, mahi-mahi, ocean perch, halibut, haddock, flounder, croaker, herring, canned tuna and other canned fish, and shellfish such as shrimp, crab, lobster, clams, oysters and scallops. Low-mercury freshwater fish include farm-raised fish, trout, crappie, sunfish, white perch, yellow perch, bream and salmon. All fish and shellfish should be properly stored, prepared and cooked.

### Additional Information

Additional information is available on the web at [www.schs.state.nc.us/ept/fish](http://www.schs.state.nc.us/ept/fish) or by calling Occupational and Environmental Epidemiology at (919) 733-3410. ❖

*(PSST RIOT, continued from page 2)*

distributed throughout the community by GCHD Syphilis Elimination Staff, SCADP and Nia staff. Outreach workers and Guilford SEP staff assembled bags of information and condoms bags for distribution during the RIOT, along with goodie bags to give to children at homes visited by team members. The HIV/STD Branch coordinated these activities.

PSST teams were divided into twelve groups of 4 to 5 members each. The teams provided free, confidential on-the-spot testing for syphilis and HIV; education about syphilis and the correlation to HIV; and the collection of epidemiological data. GCHD extended clinic hours by having a health fair on Saturday at Shield of Faith Ministries. An outreach team was also present at the Stone Soul Picnic sponsored by radio station 97.1 to offer confidential testing in a mobile van.

### Results

During the weekend, the PSST teams reached over nine hundred residents. Two hundred fifty-seven individuals were screened for syphilis during the PSST RIOT. Eleven positives were identified, for a 4 percent seropositive rate. Of those, 4 percent (5 cases) were new cases of syphilis. Six had previous histories.

Two hundred thirty persons also agreed to be tested for HIV. Six positives were found, for a 3 percent seropositive rate.

The weekend outreach is not the end of a RIOT effort. On November 9-10, a similar event took place in Columbus County—the CARES RIOT, Columbus Awakens Residents by Eliminating Syphilis for the Rapid Intervention Outreach Team, during which 313 people were screened for syphilis, 212 of whom were also tested for HIV. The local coalition continued to follow up in affected communities, and on March 22 state staff met with Columbus County Health Department staff and the local community-based organizations in a Recap RIOT meeting. To continue to increase public awareness as well as combat the syphilis increase, the group decided that jail screening would be developed for the county, all patients seen at the local health department would receive syphilis screening and be encouraged to be tested for HIV, outreach/screening efforts would continue with education by the outreach workers from the Dream Center (a local CBO), and

HIV/STD Prevention and Care would have another DIS position transferred to Region VII to ensure that the county would have continuous coverage. CDC sent Dr. Arlene Sena Soberano to work with the community coalition to determine causes of the outbreak, to identify future plans and needs of the community, and to continue to educate other health care providers in the area. A press conference was held by health director Marion Duncan and Evelyn Troy, director of the Dream Center, to share the findings of the RIOT with the community. Similar followups are planned for Guilford County.

These successful efforts continue to demonstrate that North Carolinians working together do make a difference. For further information please call Evelyn Foust, HIV/STD Prevention and Care Branch, at (919) 733-9490 or Caroline Mosely, Guilford County Health Department, at (336) 373-3136.



### **Eastern North Carolina Pediatric HIV Case Management Services and Social Work Program**

*Prepared by Portia W. Reese, Contract Administrator  
AIDS Care Unit*



The Eastern North Carolina Pediatric HIV Case Management Program was created to provide in-home social work services to families with HIV-infected children. By providing intensive services by professionals specifically trained in pediatric HIV, the program aims to reduce the need for foster care for these children. The North Carolina General Assembly established the case management program and currently awards non-encumbered HIV Foster Care monies to the AIDS Care Branch (ACU), which then contracts with three programs to provide pediatric services to 32 eastern North Carolina counties.

The strategic goals for the HIV pediatric program are to:

- Offer case management and social services to all families with HIV-infected or HIV-exposed children in the catchment regions.
- Provide training for service agencies in the catchment regions that deal with HIV-infected individuals, focusing on children's and women's issues.
- Work in all ways possible to optimize the recognition of HIV-infected pregnant women so that appropriate interventions can be made to decrease the rate of



*(Pediatric Services, continued from page 8)*

vertical transmission of HIV.

- Provide services, planning and coordinated care for all exposed infants and children in the catchment area.
- Promote the sharing of regional and statewide resources.
- Work in all ways possible to promote treatment, medical adherence and safe practices for infected teens and mothers within the catchment area.

The services are provided by five social workers. Three are outreach workers for the Duke University Infectious Disease Clinic, one serves at East Carolina University Medical Center, and one is at New Hanover Regional Medical Center.

The program focus and social work activities of the five pediatric social workers are similar and include:

- Providing in-home services to families with HIV.
- Serving as a liaison between the medical centers and the families.
- Locating funding and resources to assist families in getting to medical appointments and successfully completing clinic visits.
- Providing services to help clients adjust to taking complicated medications regimens.
- Helping plan for care of the children when a parent's health deteriorates.
- Helping parents share difficult information with children about the disease process.
- Assisting the entire family unit to cope, adjust and unite.
- Helping families access local resources for all family needs.
- Educating isolated regional counties about the needs of children with HIV, their rights to confidentiality and prevention of HIV transmission in the home and community.
- Providing training to individuals, public school officials and staff, church and civic groups and local social services agency staff on issues of abuse and neglect, family planning, education and prevention of the transmission of HIV to babies of pregnant women.

The three full-time outreach social workers at the Duke University Medical Center each serve 80 to 90 families, including referrals from infectious disease clinics and local agencies throughout eastern North Carolina. These professionals primarily work with infected children and adults and the affected family group. Over 50 percent of the total family units that visit the clinic are introduced to

existing services and helped through various systems by the outreach social workers. In the 2000 funding period, the program provided direct and coordinated services to 16 infected children; served 4 infected adult women; provided counseling and training to over 75 exposed children and 150 affected family members; and planned and/or participated in over 25 training events. As a result of the combined efforts of the social workers serving the pediatric clinics and outreach services in this region, there has been a 25 percent drop in the infection rate of newborn infants.

The East Carolina social worker provides a combination of clinic and outreach services to infected and exposed children and their families. She also serves exposed infants through hospital referral and provides follow-up services to these infants and mothers. This social worker partners with the Duke outreach staff in all training events and, through referral, a large percentage of outreach efforts. During the last contract period, the East Carolina program provided services to approximately 45 infected and/or exposed children and 120 family members.

The New Hanover Regional Hospital social worker saw a total of 330 clients in the past two years. Thirty-four exposed or HIV-positive children from the Pediatric Specialty Clinic were served, as well as infected pregnant women and affected family members. This social worker focuses on providing daily prenatal services to every HIV-infected woman entering the maternity clinic at New Hanover Regional. The mothers are encouraged to continue with medication and medical adherence programs, and continuing training, education and support is provided to infected mothers to prevent increased incidence of infants exposed to HIV. Each infant is provided services for 18 months following birth, and the social worker follows all exposed infants to ensure that required immunizations are administered. This social worker formed and conducts a monthly support group for women and coordinates the sponsorship of an annual support retreat for local infected women.

The North Carolina HIV/STD Prevention and Care Branch is committed to the expansion and accessibility of quality care and services to all exposed and infected children and families in its continuing efforts to decrease the incidence of HIV and AIDS and eventually eradicate the disease from the lives of all North Carolinians. ❖



**Reported Communicable Diseases, North Carolina, January-March 2002 (by date of report)\***

Disease	Year-to-Date (First Quarter)			1st Quarter 2002	Comments / Note
	2002	2001	Mean (97-2001)		
Campylobacter	98	70	91	98	
Chlamydia, laboratory reports	5323	5381	5007	5323	
Cryptosporidiosis	13	11	-	13	Note 1 & 2
E. coli O157:H7	6	14	8	6	Note 3
Ehrlichiosis, Monocytic	1	0	-	1	Note 1 & 2
Encephalitis, California group	1	0	0	1	Note 1 & 4
Foodborne, other	2	3	3	2	
Foodborne, staphylococcal	4	0	8	4	
Gonorrhea	3849	4359	4410	3849	
Haemophilus influenzae	11	18	11	11	
Hepatitis A	90	30	42	90	
Hepatitis B, acute	46	51	62	46	
Hepatitis B, chronic	186	110	158	186	
Hepatitis C, acute	6	6	5	6	Note 1 & 4
HUS-TTP	2	0	-	2	Note 1 & 2
HIV/AIDS	388	309	388	388	Note 5
Legionellosis	3	2	3	3	
Listeriosis	1	0	-	1	Note 8
Lyme disease	11	2	5	11	
Malaria	6	1	4	6	
Meningococcal disease	11	36	26	11	
Meningitis, pneumococcal	21	21	20	21	
Mumps	1	0	3	1	
Rabies, animal	132	143	146	132	
Rocky Mountain Spotted Fever	30	6	8	30	
Salmonellosis	223	233	207	223	
Shigellosis	65	98	66	65	
Strepto. A, invasive	50	35	-	50	Note 2
Syphilis, total	166	253	336	166	Note 6
Toxoplasmosis, congenital	1	0	-	1	
Toxic Shock Syndrome	2	2	1	2	
Tuberculosis	49	52	64	49	
Tularemia	1	1	1	1	
Vibrio, other	4	2	-	4	Note 2
Vanco. Resistant Enterococci	157	153	-	157	Note 2
Whooping cough	11	23	26	11	

\* Preliminary data, as of 6/14/2002. Quarters are defined as 13-week periods.

Notes: 1. - =Not reportable in this entire time period; 2. Became reportable 8/1/1998; 3. Became reportable 10/1/1994; 4. Became reportable as such 8/1/1998; previously within other category ("Encephalitis"; and "Hepatitis, non A-non B"); 5. Earliest report with HIV infection or AIDS diagnosis; 6. Primary, secondary and early latent syphilis; 7. Became reportable 7/1/1997; 8. Became reportable 7/2001.

*("Syphilis Alert", continued from page 3)*

The recent "Syphilis Alert" letter did the following:

- Discussed the extent of the syphilis problem in North Carolina.
- Encouraged routine screening of individuals who practice high-risk behaviors.
- Provided recommendations for diagnostic techniques and guidelines for syphilis treatment.
- Offered client education information messages.
- Provided the North Carolina HIV/STD Prevention and Care Branch phone number for reporting cases within 24 hours of diagnosis.
- Provided referral information for partner notification.
- Provided guidelines for prophylactic treatment of exposed partners.

The North Carolina Syphilis Elimination Program contracted with the North Carolina Medical Society to develop and mail out the alert to all North Carolina Medical Society practicing members and to all medical practitioners listed by the North Carolina Medical Board.



*(TB Updates, continued from page 4)*

Mecklenburg 40; Guilford 27; Cumberland 21; Durham 19; New Hanover 16; Forsyth 15 and Pitt 14. At the same time, local TB control efforts in these counties are threatened by budget and staffing cuts. Providing DOT to cases requires tremendous dedication and effort. As demonstrated in New York City in the early 1990s, when funds become restricted and TB control efforts are compromised, TB can come back with a vengeance. The fact that N.C. counties are able to maintain effective programs, as evidenced by declining case numbers, is a tribute to the perseverance of local county TB staff.

Another important trend has been the increase in the number of persons with TB who are being tested for HIV infection. In 1994, approximately 48 percent of persons with TB were tested for HIV, while today we can report that 70 percent are being tested. The percentage of persons co-infected with HIV and TB remains around 10 percent. Detection of HIV co-infection provides the TB patient with the opportunity for referral and treatment of his or her HIV disease. Drug treatment regimens for TB and HIV are altered when co-infection exists, but effective therapies can cure TB and improve the quality of life in someone who is also HIV infected. ❖

## **Employee Recognition: Beverly Cooper Employee of the Quarter**

*Prepared by Patsy West, Administrative Assistant  
Epidemiology Section Office*

Ms. Beverly Cooper has received the Epidemiology Section's Employee Recognition Award for Spring quarter, 2002. She was nominated in the category of "Significant Contribution to Morale or Effectiveness of Their Work Unit."



Ms. Cooper began working with the Occupational and Environmental Epidemiology Branch of the Epidemiology Section in January, 2001. As the front desk receptionist, she is the first contact for people who require assistance from the OEE Branch. Ms. Cooper's demeanor and personal presentation never fail to offer a professional and competent welcome to all who need help, whether visiting in person or calling by telephone. She is patient, kind, and goes to great lengths to ensure that the public and other agency representatives receive appropriate assistance. She always presents a positive, friendly and upbeat attitude. There is no such thing as a "bad day" for Beverly's co-workers, because she brightens the work environment with her attitude and personality. The Occupational and Environmental Epidemiology Branch is very fortunate to have such a professional and pleasant representative as a member of the team.

In addition to receiving the Epidemiology Section's Employee Recognition Award, Ms. Cooper will be presented with a gift certificate from the Section Management Team. ❖



State of North Carolina • Michael F. Easley, Governor  
Department of Health and Human Services • Division of Public Health  
Epidemiology Section • [www.epi.state.nc.us/epi/](http://www.epi.state.nc.us/epi/)

Dr. J. Steven Cline, Epidemiology Section Chief  
Managing Editor, J. Steven Cline  
Layout and Typesetting, Angela Green

Epidemiology Section Office (919) 733-3421  
General Communicable Disease Control Branch (919) 733-3419  
HIV/STD Prevention and Care Branch (919) 733-7301  
Occupational and Environmental Epidemiology Branch (919) 733-3410  
**Rabies Emergency Number - Nights, Weekends, Holidays (919) 733-3419**  
**EMERGENCY NUMBER - Nights, Weekends, Holidays (919) 733-3419**

500 copies of this public document were printed at a cost of \$100 or \$.20 per copy using non-state funds. 6/02 ♻️



The Department of Health and Human Services does not discriminate  
on the basis of race, color, national origin, sex, religion, age or disability  
in employment or the provision of services.



State of North Carolina  
Division of Public Health  
Epidemiology and Communicable Disease Section  
1902 Mail Service Center  
Raleigh, NC 27699-1902

PRSRT STD  
U.S. POSTAGE  
PAID  
RALEIGH NC  
Permit No. 1719